

REMARKS

Claims 1-25 are pending in the subject application. Claims 1-4 and claims 9-20 stand rejected under 35 U.S.C. 102(b). Claims 5-8 stand rejected under 35 U.S.C. 103(a). Claims 13-15 further stand rejected under 35 USC 112, second paragraph and 35 USC 101. Claims 1, 2, 11, 13, and 14 have been amended. Claims 21-25 have been newly added.

The Applicants appreciate the Examiner's thorough examination of the subject application and respectfully request reconsideration of the subject application based on the above amendments and the following remarks.

35 U.S.C. § 101 AND § 112, SECOND PARAGRAPH REJECTIONS

Claims 13-15 stand rejected under 35 USC 101 and 35 USC 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter of the present invention. Claims 13 and 14 have been amended. Accordingly, the Applicants believe that the grounds for rejection are moot.

35 U.S.C. § 102(b) REJECTIONS

The Examiner has rejected claims 1-4 and 9-20 under 35 USC 102(b) as being anticipated by U.S. Patent Number 5,402,143 to Ge, et al. ("Ge" or the "Ge Reference"). The Applicants respectfully traverse these rejections in view of the above amendments and for reasons detailed below.

The present invention provides a visibility-improved, impulse-type display device. In contrast with a "hold type" display device, in which light output layers shine continuously, "impulse-type" display devices only allow the lights output layers to

shine for a discrete duration in a frame. See, e.g., Specification, page 19, lines 11-19. Furthermore, with respect to claims 1-12, the present invention provides an impulse-type display device that does not use a color filter and, further, does not use backlighting. See, e.g., Id., page 15, line 20 to page 16, line 1. The effect of the latter is lower power consumption. See, e.g., Id., page 26, lines 5-13. The effect of the former is reduced size and cost.

Moreover, with respect to claims 13-20, RGB light output layers that shine with mutually different wavelengths are caused to shine and extinguish simultaneously, so that it is possible to shorten the period at which all of the RGB light output layers shine and extinguish, thereby improving the movie display.

In contrast, the Ge reference teaches a "hold type" display device that combines an LCD with an electro-luminescence device ("ELD"). However, according to the present invention,

the [Ge] technology requires both a matrix-type liquid crystal display element and a matrix-type organic EL display element stacked thereon, adding to the panel fabrication costs.

Id., page 5, lines 8-11 (Emphasis added). Moreover,

since a transparent substrate is positioned between the two elements, the display apparatus provides poor visibility when viewed from an oblique angle. Attempts to improve visibility will present other challenges: The aperture ratio must be reduced; and an ultra-thin, but expensive transparent substrate must be used.

Id., page 5, lines 14-20 (Emphasis added). Thus, the invention as claimed recognizes the deficiencies of EFLCD devices.

Furthermore, the Ge reference discloses a backlight device that "provides back lighting only to the portion of the LCD which is being scanned." Ge, col. 5, lines 32-33. Thus, Ge teaches using backlighting, which teaches away from the invention as claimed.

Furthermore, as shown in FIG. 10 of Ge, the light output layers of different colors shine and extinguish sequentially. As a result, the period at which all of the RGB light output layers shine and extinguish is long. This arrangement is inferior with respect to movie displays.

Thus, it is respectfully submitted that, claims 1-4 and 9-20 are not anticipated by Ge and, further, satisfy the requirements of 35 U.S.C. 100 et seq., especially § 102(b). As such, the Applicants believe that claims 1-4 and 9-20 are allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

35 U.S.C. § 103(a) REJECTIONS

The Examiner has rejected claims 5 and 6 under 35 USC 103(a) as being unpatentable over Ge in view of U.S. Patent Number 5,760,858 to Hodson, et al. ("Hodson" or the "Hodson Reference") and claims 7 and 8 under 35 USC 103(a) as being unpatentable over Ge in view of U.S. Patent Number 5,535,027 to Kimura, et al. ("Kimura" or the "Kimura Reference"). The Applicants respectfully traverse these rejections for reasons detailed below.

Claims 5 and 6

For the same reasons provided above that the Ge reference does not anticipate the invention as claimed, Ge also does not make the present invention obvious. Nor can the Hodson reference make up for the deficiencies of the Ge reference. Indeed, the Hodson reference does not teach, mention or suggest a display device that eschews using a color filter and/or backlighting. Therefore, it is respectfully submitted that, claims 5 and 6 are not made obvious by Ge in view of Hodson and, further, satisfy the requirements of 35 U.S.C. 100 et seq., especially § 103(a). As such, the Applicants believe that claims 5 and 6 are allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

Claims 7 and 8

Nor can the Kimura reference make up for the deficiencies of the Ge reference. Kimura discloses a display device having a plurality of luminous sources arrayed in parallel with each other, a plurality of linear electrodes arrayed with each other, wherein the luminous sources are crossed with the linear electrodes, and a plurality of photoconductive layers provided at these crossed positions. See, e.g., Kimura, Abstract. Kimura also teaches using back lighting. Kimura, however, does not teach at least one light output layer that is arranged in stripes and that extends in the same direction as the gate electrodes wherein the output layer is allowed to shine after the liquid crystal has responded to applied scan and data signals. Accordingly, the combination of Ge in view of Kimura does not teach, mention or suggest the present invention.

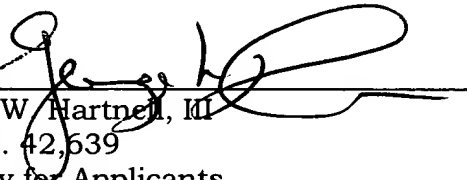
Thus, it is respectfully submitted that, claims 7 and 8 are not made obvious by Ge in view of Kimura and, further, satisfy the requirements of 35 U.S.C. 100 et seq., especially § 103(a). As such, the Applicants believe that the claims are allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

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The Applicants believe that no additional fee is required for consideration of the within Response. However, if for any reason the fee paid is inadequate or credit is owed for any excess fee paid, you are hereby authorized and requested to charge Deposit Account No. **04-1105**.

Respectfully submitted,

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